M. A. R. 57 (Rule 116)

Measurement Book

No. B

2nd & final.

BR 240/25.06.2014

Name of work Improvements roads to Medarahalli main road in Ward no-12 From ... To ... 83315

Medarahalli sub-Division

Name of Contractor or nature of Agency Technical Manager (Heat) KRIDL

Date of commencement of work No EE/DD/WO/238/12-13 JCi- 012-12 - 0000047

Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Depth	Contents	Reference to last Measurement
2	3	4	5	6	7	8
Measured on 29/5/14						
Scarifying existing Stone metal layer upto 75mm thick. along with their bituminous surface picking up scarified materials and stacking of old serviceable materials with addl of 100m sequential spreading of the salvages aggregates with fresh aggregates consolidating as per water bound macadam specification including cost of all labour Hire of machineries complete as per Specification						
as vide pg no 83366/1 of this M.B.					338.0 Sqm @ 65.23	
					Rs! - 22048.00	

MEASUREMENT BOOK

Date	Full description, etc. of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
I-2	Clearing the existing black topped surface with brooms soft brushes and finally dusting with old gunny bags or compressed air to receive bituminous treatment including cost of all materials labour Hom of machineries complete as per Specification. By vide Pg no 833/2/1 of this M.B.					3594.50 Sqm @ 2.38 Rs- 8555.00	
I-3.	Earth work in surface excavation in hard soil for levelling and lowering the ground manually (other than foundation of buildings, culverts road drains and trenches of pipe line and cables) and removing the excavated Stuff to a distance not exceeding 50m and lift upto 1.5m excavated leveled						

M. A. R. 57 (Rule 116)
Measurement Book

No. B 83 316

Serial No. .....
Name of work ..... From ..... To .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Note	Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Depth	Contents	Reference to last Measurement
	2	3	4	5	6	7	8
	and neatly dressed disposed earth to be leveled after breaking of clods complete as per specification. Qty vide pg no 83366/2 of this M.B.					273.42 cum @ 154=76 Rs:- 42114=00	
	Construction of granular sub-base by providing close graded material mixing in a mechanical mix plant at OMC Carriage of mixed materials to work site spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density complete as per specification Qty vide pg no 83367/2 of this M.B.					20A·31 cum @ 981=72 Rs:- 20575=00	

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
I-5	Providing laying Spreading and compacting graded Stone aggregate wet mix macadam Specifications including Premixing the materials with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared Surface and compacting with vibratory roller to achieve the desired density complete as per Specifications as vide pg no 83368/2 of this M.B					204.31 cum @ 1059.48 Rs 216462.00	
I-6	Providing and applying primer coat from 7.5 to 9.8 kg and 9.8 and 12.8 kg/10 sqm for surfaces of low medium Porosity properly over prepared surface						

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No. B

83317

Serial No. .....
Name of work ..... From ..... To .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc, of work	Number	Dimensions Length	Breadth	Depth	Contents	Reference to last Measurement
	2	3	4	5	6	7	8
	granular base with cut back C-70 or any other bitumen including cost of all materials labour hire of machineries complete as per specification.						
	any vide pg no 83369/2 of this M. B.					1021.55 Sqm @ 68=36	= 69833=00
	Tack-coat providing and laying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per Sqm on the prepared surface cleaned with mechanical broom complete as per specifications						

62=00

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Qty vide pg no 83372/2 of this M.B. @					3836.30 Kgs 10.80 Mt = 41432.00	
I.S.	providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base/binding course including loading of aggregates with F.E loader hot mixing of stone aggregates and bitumen in hot mix plant 40 tonne capacity transporting the mixed materials in tipper to paver & laying mixed materials 50/75 mm compacted thickness with 80/100 grade bitumen but excluding cost of primer/tack coat with lead upto 1Km including						

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Measurement Book

No. B

83318

From ..... To .....

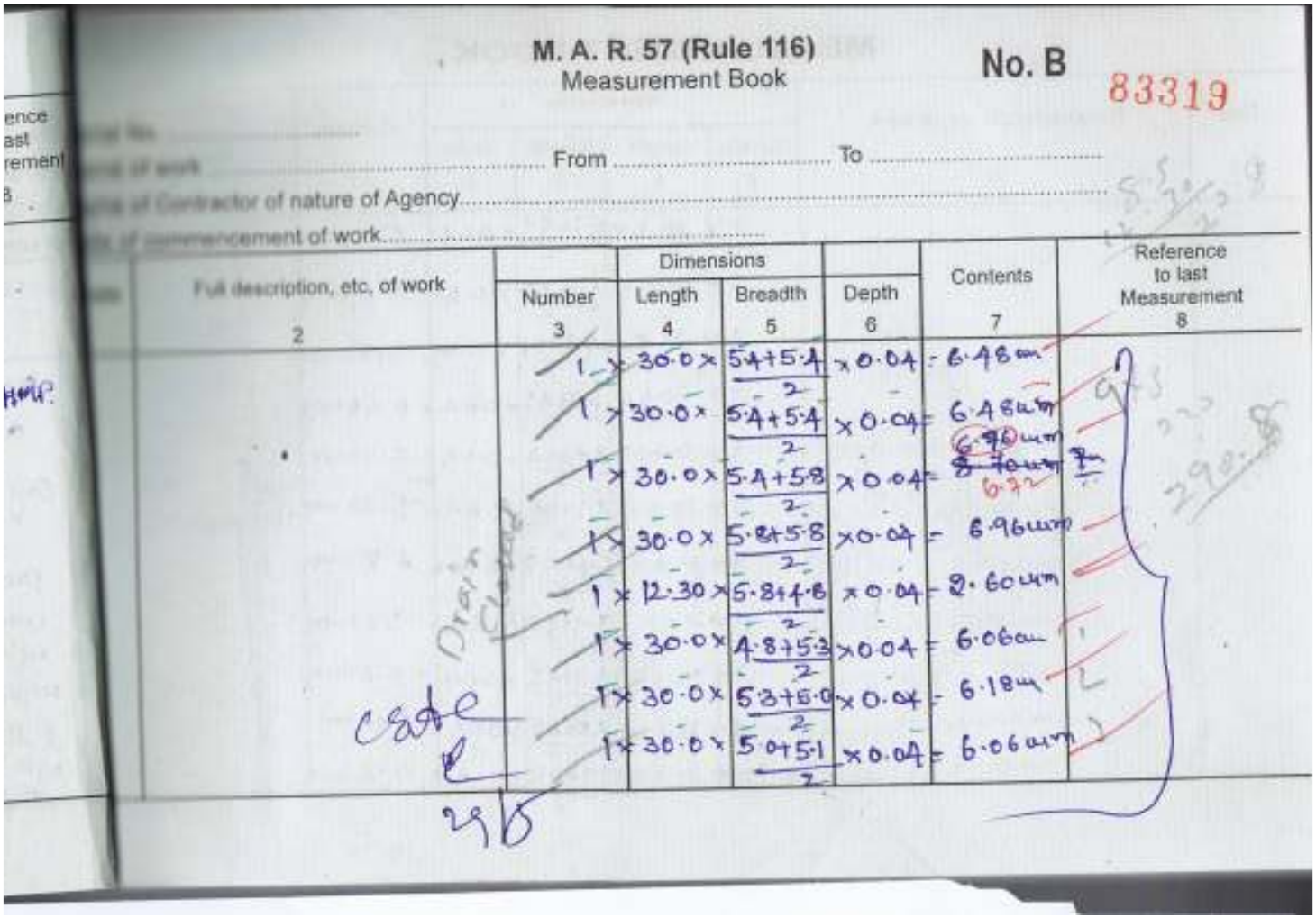
... of Contractor of nature of Agency .....

... of commencement of work .....

Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Dimensions: Depth	Contents	Reference to last Measurement
2	3	4	5	6	7	8
Cost of all materials as per specification.	Labour	HOM	of machineries	Complete		
Pay vide Pg no 83370/	Limited	of this M.B.			52=62 cum @ 6106=32 Rs-	311896-00
Providing and laying bituminous concrete with 100-120 TPH batch type hot mixing an average out put of 75 tonnes/hour using crushed aggregates of specified grading premixed with bitumenous binder at 5.4 to 5.6% of mix and filler transporting the hot mix to work site laying with a hydrostatic paver paver with sensor control to the required grade level and alignment.		61.08 cum				

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measuremen
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Rolling with ~~Smooth~~ wheeled vibratory roller and tandem rollers to acheive the desired compaction as per MoRTH Specification No 500-9 complete in all respects complete as per specification 30-45mm compacted thickness with 6% bitumen 80/100 grade vg 10-60 Hard. Avg thickness						
	From Railway gate to pavithra School. Road Near R.R college (~~60~~ to 1034.60M) Medarahalli main road.	1	8.50	$\frac{10.5+7.2}{2}$		×0.04 = 3.00um	
		1	30.0	$\frac{7.2+6.4}{2}$		×0.04 = 8.16um	
		1	30.0	$\frac{6.4+6.5}{2}$		×0.04 = 7.74um	
		1	30.0	$\frac{6.5+6.6}{2}$		×0.04 = 7.86um	
		1	30.0	$\frac{6.6+5.3}{2}$		×0.04 = 7.14 um	
		1	30.0	$\frac{5.3+5.4}{2}$		×0.04 = 6.42um	



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Measurement Book

No. B 83319

From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Depth	Contents	Reference to last Measurement
2	3	4	5	6	7	8
	1	30.0	(5.4+5.4)/2	0.04	= 6.48 cum	
	1	30.0	(5.4+5.4)/2	0.04	= 6.48 cum	
	1	30.0	(5.4+5.8)/2	0.04	= 6.72 cum	
	1	30.0	(5.8+5.8)/2	0.04	= 6.96 cum	
	1	12.30	(5.8+4.6)/2	0.04	= 2.60 cum	
	1	30.0	(4.8+5.3)/2	0.04	= 6.06 cum	
	1	30.0	(5.3+5.0)/2	0.04	= 6.18 cum	
	1	30.0	(5.0+5.1)/2	0.04	= 6.06 cum	

Drain Cleaning

Cash

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
		1	30.0	$\frac{5.1+4.1}{2}$	0.04	= 5.52 cum	
		1	30.0	$\frac{4.1+4.4}{2}$	0.04	= 5.10 cum	
		1	24.80	$\frac{4.4+5.8}{2}$	0.04	= 5.06 cum	
		1	30.0	$\frac{6.3+4.3}{2}$	0.04	= 6.48 cum	
		1	30.0	$\frac{4.5+4.3}{2}$	0.04	= 5.28 cum	
		1	30.0	$\frac{4.3+5.4}{2}$	0.04	= 5.82 cum	
		1	30.0	$\frac{5.4+4.9}{2}$	0.04	= 6.18 cum	
		1	30.0	$\frac{4.9+4.3}{2}$	0.04	= 5.52 cum	
		1	30.0	$\frac{4.3+4.5}{2}$	0.04	= 5.28 cum	
		1	30.0	$\frac{4.5+3.9}{2}$	0.04	= 5.04 cum	
		1	30.0	$\frac{3.9+2.8}{2}$	0.04	= 4.62 cum	

cgbe
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No. B

83320

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Depth	Contents	Reference to last Measurement
2	3	4	5	6	7	8
	1 ×	30·0 ×	(3·8+4·2)/2	× 0·04	= 4·80 cum	9
~~Railway gate~~	~~1 × 30·0 × 4·24~~					
	~~1 × 29·0 × (4·2+3·5)/2 × 0·04 = 4·46 cum~~					
	1 ×	30·0 ×	(4·2+4·10)/2	× 0·04	= 4·98 cum	10
	1 ×	30·0 ×	(4·1+4·10)/2	× 0·04	= 4·92 cum	11
	1 ×	30·0 ×	(4·1+4·0)/2	× 0·04	= 4·86 cum	12
	1 ×	30·0 ×	(4·04+4·10)/2	× 0·04	= 4·86 cum	13
	1 ×	30·0 ×	(4·10+4·2)/2	× 0·04	= 4·98 cum	14
	1 ×	30·0 ×	(4·2+4·30)/2	× 0·04	= 5·10 cum	15

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
		1	30.0	$\frac{4.3+4.4}{2}$	0.04	= 5.22 cum	16
		1	30.0	$\frac{4.4+4.3}{2}$	0.04	= 5.22 cum	17
		1	30.0	$\frac{4.3+4.1}{2}$	0.04	= 5.04 cum	18
		1	29.0	$\frac{4.1+4.4}{2}$	0.04	= 4.93 cum	19
						208.00 cum	
I-10	Carriage of mixed materials 10 kms for item no (8) to (9)					@ 1050.00	2184849-00
						= 259.54	
						@ 56.70	
						= ₹ 14716.00	
I-11	Earth work excavation for foundation of building, adverts, water supply sanitary lines & electrical conduits either in pits or in trenches 1.5 m						

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No. B

83321

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Dimensions: Depth	Contents	Reference to last Measurement
2	3	4	5	6	7	8
Above in Width bottom & Sides of Pits & trenches clearing the excavated Soil clear from edges of excavation with lead up to 50m after breaking of clods complete as per specification						
Qty vide pg no		of M.B. 1640/09-10			951.51 cum	
Qty vide pg no 83373/1		of this M.B.			84.56 cum	
		Total Qty.			1036.07 cum	
Dper vide pg no		of M.B 1640/09-10 @			951.51 cum	
		Qty now to be paid			84.56 cum	
	Qty ltd	to tender @ 81.69 cum			132.50 Rs:-	2874-00

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measuremen
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
I-12	Providing and laying in position Plain cement concrete of mix M-10 with OPC cement @ 220 kgs with 40mm & down size graded granite metal coarse aggregate @ 0.892 cum and fine aggregate @ 0.465 cum machine mixed concrete laid in layers not exceeding 15 cms thick well compacted in foundation & plinth cost of all materials, labour machinery curing complete as per Specifications.						
	qty vide pg no	of M.B.		1640/	09-10	109.77 cum	
	qty vide pg no 83393/2	of this M.B.				9.05 cum	
		Total qty.				118.82 cum	
	DPA vide pg no	of M.B.		1640/	09-10	109.77 cum	

MEASUREMENT BOOK

Date	Full description, etc. of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Curing complete as per specifications.						
	Qty vide pg no			of M.B	1640/09-10	256.16 cum	
	Qty vide pg no 83375/2			of this M.B.		83.23 cum	
	D. Project.						
				9 × 1.80 × 0.60 × 0.23		2.23 cum	
				1 × 6.0 × 1.70 × 0.23		2.34 cum	
				1 × 7.20 × 1.70 × 0.23		2.81 cum	
				6 × 1.80 × 0.60 × 0.23		1.49 cum	
				1 × 2.30 × 1.70 × 0.23		0.93 cum	
				Total Qty.		299.19	
	Dpa vide pg no			of M.B 1640/09-10		(-) 256.16 cum	

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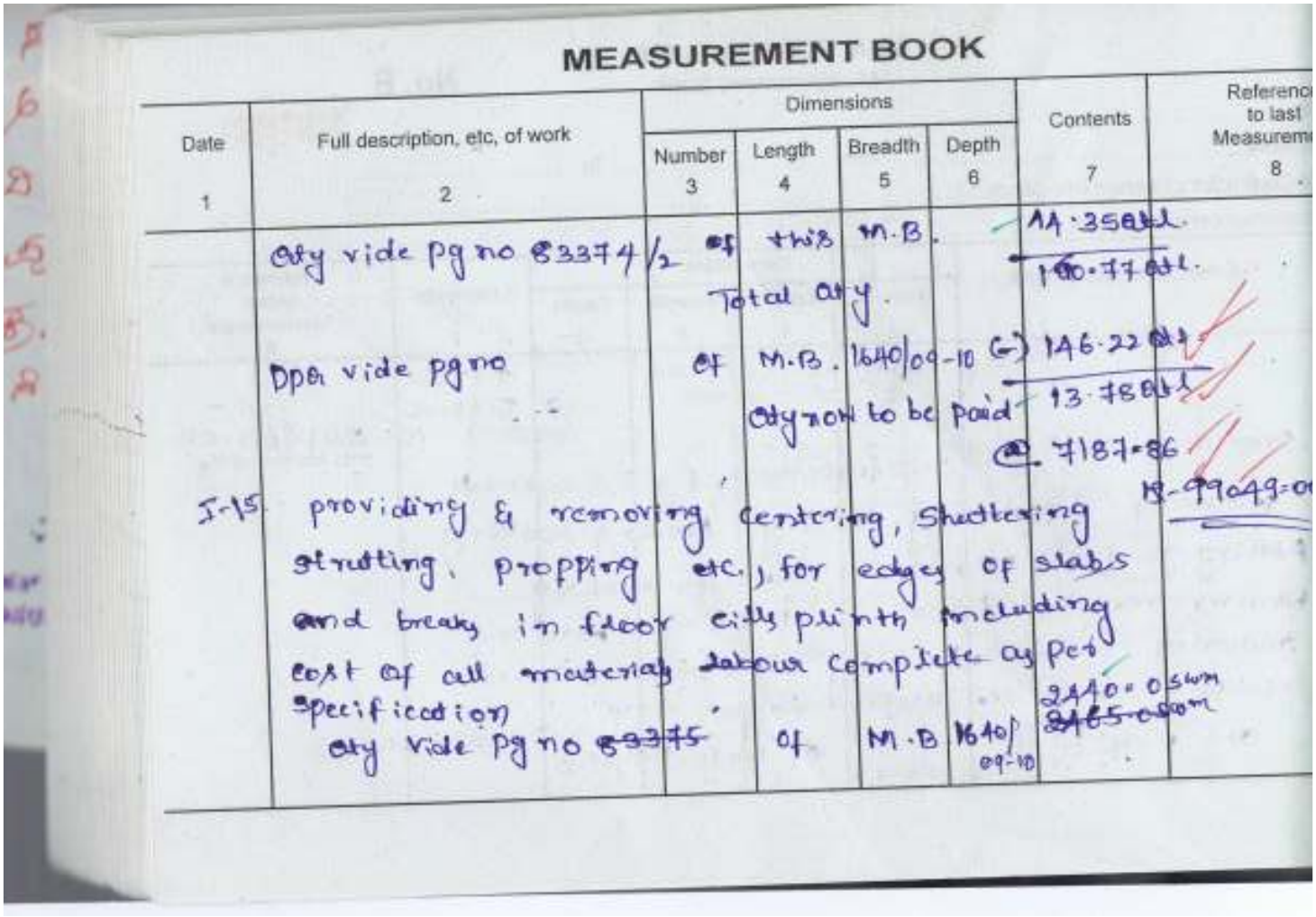
83323

From ..... To .....

of Contractor of nature of Agency.....

of commencement of work.....

Full description, etc, of work	Number	Dimensions		Depth	Contents	Reference to last Measurement
2	3	Length 4	Breadth 5	6	7	8
Qty now to be paid				@	43.03 5142=06 Rs 221263=00	
Providing TMT steel reinforcement for R.C.C. work including straightening cutting bending hooking placing in position, lapping and/or welding wherever required tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design						
Qty vide pg no				of M.B. 1640/09-10	146.22 Mt.	



MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurem
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Qty vide pg no 83374 1/2 of this M.B.					11.350 Cu.M.	
	Total Qty.					190.770 Cu.M.	
	Dpr vide pg no of M.B. 1640/09-10					(-) 146.220 Cu.M.	
	Qty now to be paid					13.780 Cu.M.	
						@ 7187.86	
						Rs-99049-00	
I-15	providing & removing centering, Shuttering struting, propping etc., for edges of slabs and breaks in floor cills plinth including cost of all materials labour complete as per specification					2440.0 Sqm	
	Qty vide pg no 83375		of	M.B	1640/09-10	2465.0 Sqm	

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Measurement Book

No. B 83324

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Dimensions: Depth	Contents	Reference to last Measurement
2	3	4	5	6	7	8
Qty vide pg no 83375/1 of this M.B.					107.52 sqm	
Total Qty.					2572.52 sqm	
Dpa vide pg no						
of M.B. 1640/09-10					(-) 2465.00 sqm	
Qty now to be paid					25.00 sqm	
					@ 555.44	
					Rs- 13886.00	
Providing & laying reinforced cement precast slabs of misc. 1:1½:3 using 20mm & down size graded granite metal using 10 mm ϕ Steel @ 100 c/c both ways & complete as per specification.						

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	DPR vide pg no of	M.B. 1640/09-10 (-) 540.000 Rm					
		Qty now to be paid — Nil —					
I-17.	Providing & fixing pre cast solid concrete kerb stones made out of CC 1:2:4 & finished with CM 1:3 plastering & finishing cutting etc, complete of size 450 × 200 × 400 mm						
	DPR Vide pg no	of M.B. 1640/09-10 (-) 1350.0 Nos					
		Qty now to be paid — Nil —					
I-18.	Providing & applying ready to mix priming coat over concrete / masonry / asbestos cement sheet plastered surfaces including preparing the surface after throughly cleaning of oil grease dirt.						

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No. B 83325

From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Dimensions: Depth	Contents	Reference to last Measurement
2	3	4	5	6	7	8
and other master and Sand pepering including cost of materials labour complete as per specification Qty now to be paid - Nil						
Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces with materials labour complete as per specification Qty now to be paid - Nil						

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Refere to las Measure
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
I-20	Disposal of debris to the final place of disposal with all all lead & lift and as directed by the engineer in charge of the work.						
	Qty Vide Pg no					M.B No 1640/09-10	951.51 cum
	Qty vide item no (3) + (11)						357.98 cum
	273.42 + 84.56 cum						1309.49 cum
	DPR Vide Pg no	Qty	Total Qty of M.B 1640/09-10			(-)	951.51 cum
							357.98
		Qty no wto be Paid				@	295.11 cum 100.35
		Amount	36582.51=00				Rs 29614 = 0
		KRDL	365.825=00				
			40240.76=00				

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No. B 83326

...of work ..... From ..... To .....

...of Contractor of nature of Agency.....

...of commencement of work.....

Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Dimensions: Depth	Contents	Reference to last Measurement
2	3	4	5	6	7	8
Certificate:-						
a) Certified that contractor has done the work satisfactorily.						
b) Certified that contractor has removed all debris from work spot						
c) Certified that there is no due work from contractor side.						
Asst. M.E. 29/5/2014						
					ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು ಶಬ್ದಪಳ್ಳ ಉಪವಿಭಾಗ, ವಾಸಕಪಳ್ಳ ಮಲಯ ಬೈಕಂಪಾಡಿ ಮಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ ಎಸ್.ಎಂ.ರಸ್ತೆ, ಪದವಿನಂಗಡಿ, ಮಂಗಳೂರು.	

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8